Philadelphia International Airport
Plans to Improve Operational Efficiency

Current Situation:

- Philadelphia was the 6th most delayed airport in the U.S. in 2000 (based on FAA OPSNET reported delays).
- Philadelphia's current scheduled traffic peaks can be handled efficiently during good-weather conditions, but scheduled traffic exceeds adverse-weather capacity for 3 ½ hours of the day.
- On adverse weather days, about 14 percent of the flights are delayed significantly (more than 15 minutes).

  NOTE: Delays of 15 minutes or more as reported in FAA OPSNET System.

Future Demand:

- Demand is forecast to grow by 33 percent over the next 10 years.

  (Source: The FAA 2000 Terminal Area Forecast. Demand is defined as total number of operations).

Planned Improvements:

- Airport construction will reduce delays on the airport surface and may add to airside capacity.
  - No new runways are planned for Philadelphia.
  - Terminal construction will reduce gate contention delays.
  - Additional taxiways and high-speed turnoffs will improve runway utilization and may thereby improve airside capacity.
- Procedure, airspace, and technology improvements are expected to improve good-weather capacity by 17 percent and adverse-weather capacity by 11 percent over the next 10 years.
  - Improved arrival and departure procedures are expected to improve efficiency (FMS/RNAV routes, improved STARs, DPs and PRM/SOIA).

    NOTE: The agency recognizes that the full capacity benefits of PRM will be realized only after a commitment by the domestic and foreign users to train and execute these approaches. Following additional safety analyses, the use of PRM/SOIA procedure to the two main runways may offer the potential for further increases in operational flexibility and airport capacity.
  - Airspace redesign including the Choke Point initiative will restructure the airspace and routes into and out of the New York/New Jersey/Philadelphia area to

increase terminal airspace capacity and to provide more efficient routes (e.g., new sector Geauga High in ZOB, two new terminal sectors in Philadelphia Tracon).

- Choke Point action items are expected to provide more efficient flows, greater access to overhead streams, and additional terminal airspace capacity.
- FFP1 and FFP2 capabilities will increase terminal airspace capacity and efficiency (multi-center TMA).
- Avionics improvements and the associated procedures are expected to improve situational awareness thus enhancing safety and improving terminal airspace capacity (ADS-B/CDTI with LAAS).

Other Potential Considerations:

- The city of Philadelphia, airlines, and FAA worked together on an Airport Design Team Study/Capacity Enhancement Plan (CEP) published in 1991. This study examined the delay reduction potential of additional runway and related infrastructure improvements.The airport is in the process of a significant master planning effort which is focused on the airfield..

- Eastern Region Air Traffic Capacity Enhancement Task Forces/Users Meetings facilitate and coordinate the short-term “planned” air traffic capacity improvements. Consideration should be given to expand this to longer term and airfield and procedural options.

- All airlines should examine their individual scheduling practices.